

subsequent champions of the Kock procedure went beyond "outcome" in scientific terms and used their concern for quality of life to invent a creative surgical innovation. Is this not germane to the topics discussed in the recent forum in this journal on Orthodox Medicine, Humanistic Medicine and Holistic Health Care? The science and art of medicine is in its infancy. Let us remain compassionate toward ourselves, as we are toward our patients.

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β -Lactamase Producing *Haemophilus influenzae*

TO THE EDITOR: This is a five-year follow-up report on the incidence of β -lactamase, producing *Haemophilus influenzae* type B (*H influenzae* B) organism isolated from the spinal fluid of children treated at Children's Hospital of San Francisco (CHSF) for meningitis.

From 1970 to December 1975, there were 34 children with *H influenzae* B meningitis treated with ampicillin (300 to 400 mg per kg of body weight). All had repeat lumbar punctures showing sterilization of spinal fluid after therapy was completed. One death occurred in 1973.

Isolation of *H influenzae* B with β -lactamase production and resistance to ampicillin were reported in 1974 and 1975. CHSF began testing all *H influenzae* B cultures in 1975, and during the spring isolates from children with pneumonia and otitis media were noted to be β -lactamase positive.

Since 1975 all *H influenzae* B cultures from children with serious illness, including meningitis,

were tested for β -lactamase production by the tube dilution method. In the spring of 1975 a policy was instituted at CHSF to treat all life-threatening infections suspected to be caused by *H influenzae* B with both ampicillin (200 to 400 mg per kg of body weight) and chloramphenicol (100 mg per kg) given every six hours for 10 to 14 days. After the cultures were obtained, if β -lactamase production was noted, ampicillin therapy was discontinued and the child kept on a regimen of chloramphenicol or if nonproduction was noted, only ampicillin was given. In December 1975, the first child with *H influenzae* B meningitis resistant to ampicillin was identified.

There have been 38 cases of *H influenzae* B meningitis from December 1975 to April 1980. Five isolates of *H influenzae* B were found to be β -lactamase producers with ampicillin resistance. These five cases represent an incidence of 13.2 percent resistant organisms from the meningitis cases. All five of the children were treated successfully with chloramphenicol.

The results of the last five years support the policy of all severe cases of suspected *H influenzae* B infections (meningitis, periorbital or facial cellulitis, epiglottitis, septic arthritis or osteomyelitis in the appropriate age groups) receiving as initial therapy ampicillin and chloramphenicol.

There have been no isolates of *Haemophilus influenzae* B from children at CHSF with serious infections that are resistant to chloramphenicol. Such cases have been reported in the literature and a case of meningitis with resistance to both organisms has been noted. Therefore, all isolates of *H influenzae* B from children with meningitis should have full sensitivity studies.

A review of all cases of meningitis in children treated at CHSF in the last decade is being prepared.

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